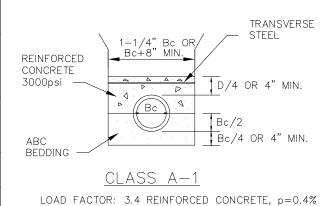
ALLOWABLE V.C.P. TRENCH LOADING						
PIPE SIZE (INCHES)	V.C.P. THREE EDGE BEARING STRENGTH MIN.	ALLOWABLE TRENCH LOAD PER CLASS OF BENDING SOIL WT.=130#/CU. FT. SAFETY FACTOR=1.5				
		CLASS A-I L.F.=3.4	CLASS A L.F.=2.8	CLASS B-I L.F.=2.2		
8	2200	4987	4107	3227		
10	2400	5440	4480	3520		
12	2600	5893	4853	3813		
15	2900	6573	5413	4253		
18	3300	7480	6160	4840		
21	3850	8727	7187	5647		
24	4400	9973	8213	6453		
27	4400	10653	8773	6893		
30	5000	11333	9333	7333		
33	5500	12467	10267	8067		

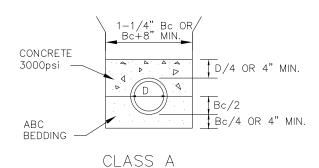
13600

14960

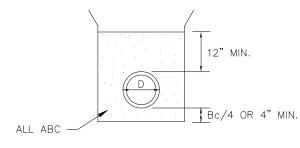
11200

12320





LOAD FACTOR: 2.8 PLAIN CONCRETE



# CLASS B-I

LOAD FACTOR: 2.2 ABC ENCASEMENT

# NOTES

7/97

MAG SECTION 601 AND CITY OF GOODYEAR SUPPLEMENT APPLIES FOR FOUNDATION, BEDDING, BACKFILL, MATERIALS AND COMPACTION.

G-3420 CITY OF GOODYEAR STANDARD DETAIL

6000

6600

36

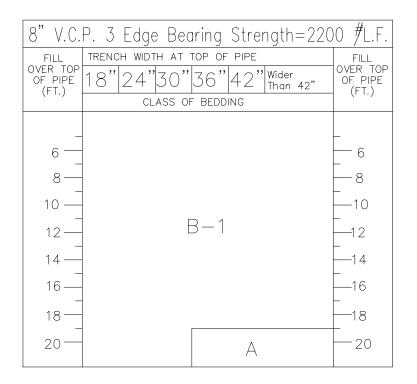
39

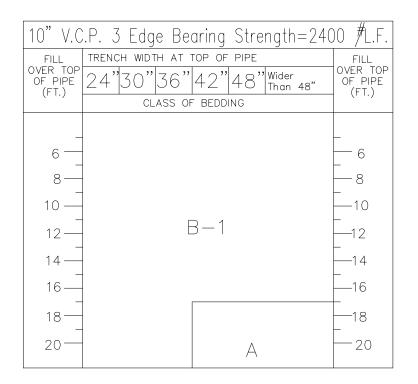
APPROVED BY: Goodyear Standards and Policies Committee

8800

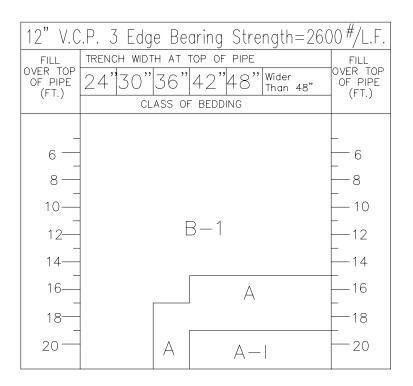
9680

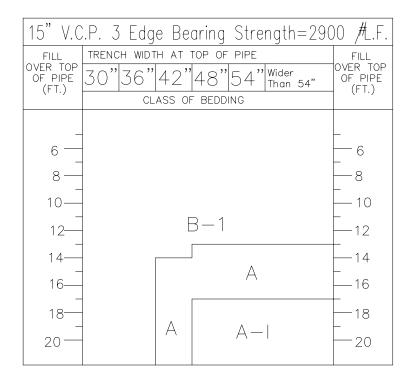
V.C.P. TRENCH LOADING

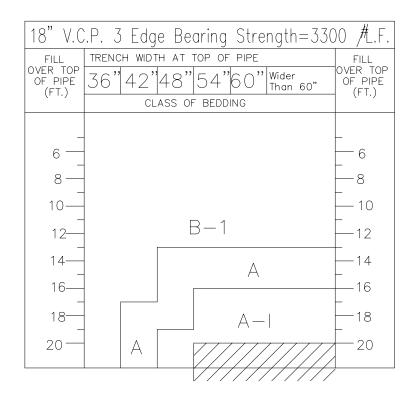


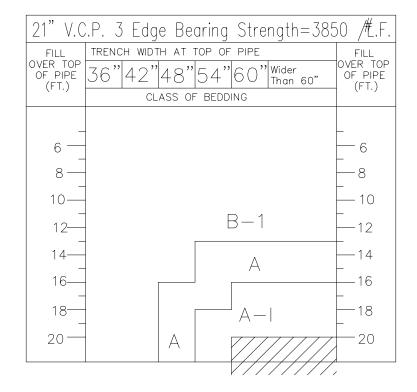


DETAIL NO.
G-3421









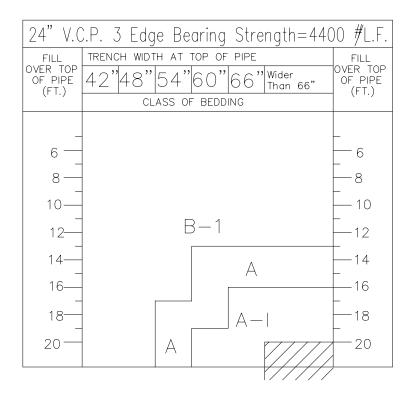
REQUIRES DESIGN ACTION

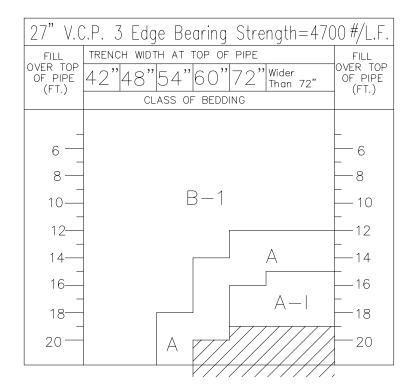
DETAIL NO. G-3423

CITY OF GOODYEAR STANDARD DETAIL

APPROVED BY: Goodyear Standards and Policies Committee 7/97

18" & 21" V.C.P. TRENCH LOADING





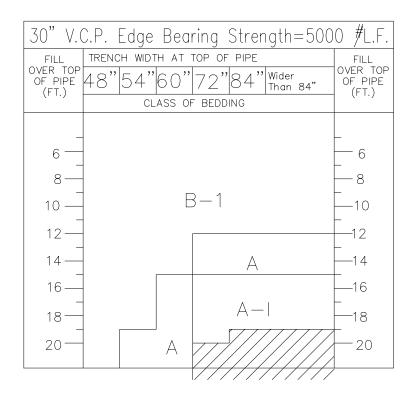
REQUIRES DESIGN ACTION

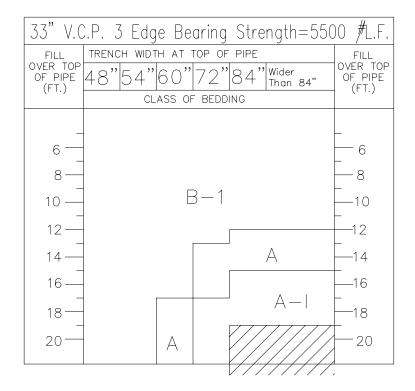
G-3424 CITY

CITY OF GOODYEAR STANDARD DETAIL

APPROVED BY: Goodyear Standards and Policies Committee 7/97

24" & 27" V.C.P. TRENCH LOADING



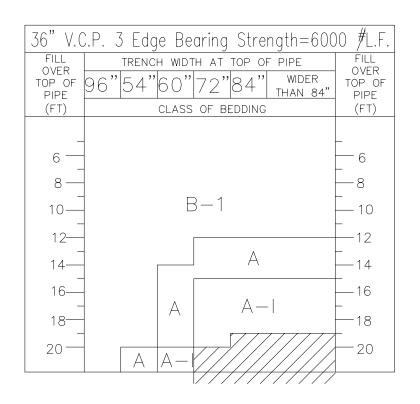


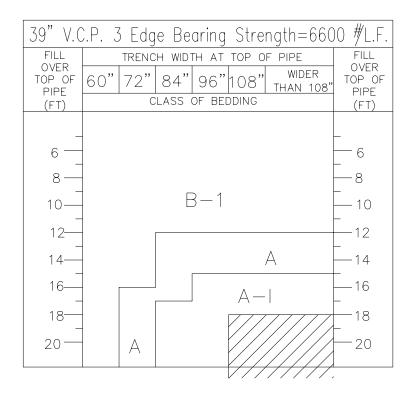
REQUIRES DESIGN ACTION

SEE DETAIL G-3425 FOR BEDDING DETAILS

DETAIL NO. **G-3425**  CITY OF GOODYEAR STANDARD DETAIL APPROVED BY: Goodyear Standards and Policies Committee 7/97

30" & 33" V.C.P. TRENCH LOADING

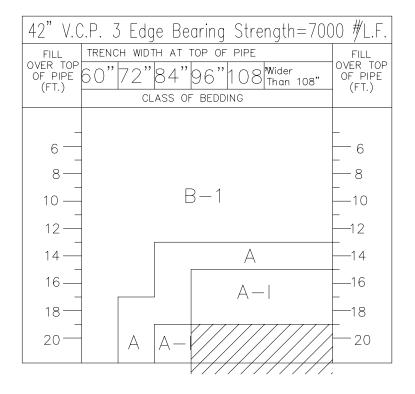




REQUIRES DESIGN ACTION

DETAIL NO.	CITY OF GOODVEAR
G-3426	CITY OF GOODYEAR STANDARD DETAIL

ALLOWABLE		V.C.P	. TREI	VCH L	OADING
PIPE SIZE (Inches)	V.C.P. Three Edge Bearing Strength Min.	ALLOWABLE TRENCH WIDTH PER CLASS OF BEDDING SOIL WT.=130 #Cu. FtSafety Factor=1.5			
		Class A-1 L.F.=3.4	Class A L.F.=2.8	Class B-1 L.F.=2.2	
42	7000	15867	13067	10267	



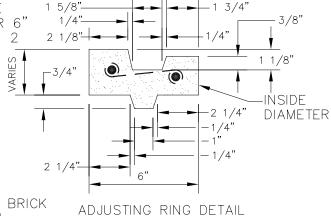
SEE DETAIL G-3420 FOR BEDDING DETAILS
REQUIRES DESIGN ACTION

DETAIL NO.
G-3427

### NOTES

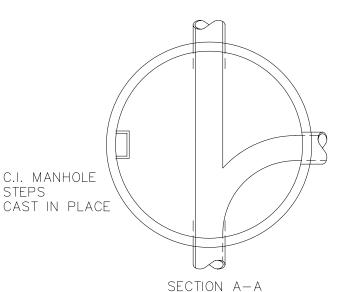
PRECAST MANHOLES WHICH HAVE BEEN APPROVED FOR USE BY THE WATER AND SEWER DEPARTMENT, ARE ACCEPTABLE SUBSTITUTES. DIMENSIONS AND MATERIAL SHALL CONFORM TO THE CAST—IN—PLACE DETAIL SHOWN BELOW. INDIVIDUAL UNITS WILL BE INSPECTED AND STAMPED BY THE DIVISION OF FIELD ENGINEERING PRIOR TO DELIVERY TO THE SITE.

2-NO. 2 HOOPS FOR 4"
OR THINNER RING. TIE
WITH NO. 4 WIRE. FOR 6"
AND OVER USE 4 NO. 2
HOOPS.



PROVIDE PRECAST ADJUSTMENT RINGS, BRICK AND MORTAR COLLAR OR COMBINATION.

MANHOLE RING & COVER



HELDER OF MIN. - 8" MAX.

6" MIN. - 8" MAX.

6" MONOLITHICALLY PLACED CONCRETE CLASS 'A', AS PER SECT. 725 & 505.

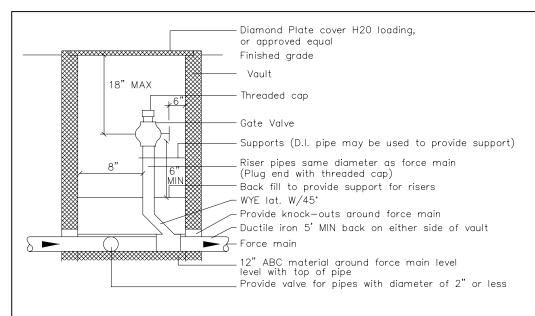
12" IF M.H. IS OVER 13' DEEP

VARIES-12" MAX.

G-3430 CITY OF GOODYEAR STANDARD DETAIL

APPROVED BY: Goodyear Standards and Policies Committee 7/97

CONCRETE SANITARY SEWER MANHOLE NON-REINFORCED & PRECAST

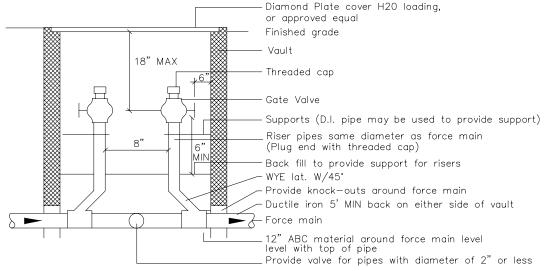


# One Way Cleanout

Note: One—way cleanouts shall be installed on maximum 400 foot centers along force main. Rotate vault as required to keep behind back of curb.

## Two Way Cleanout

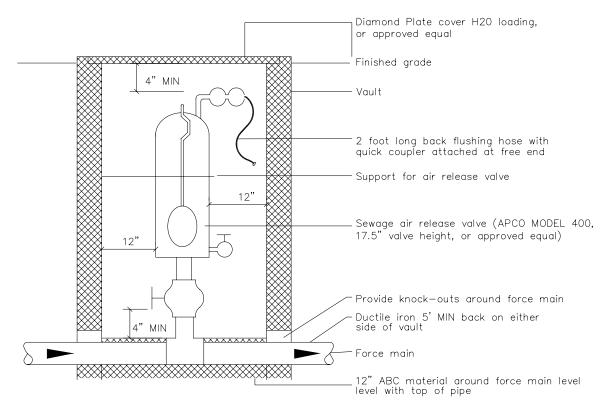
Note: Two—way cleanouts shall be installed on maximum 800 foot centers along force main. Rotate vault as required to keep behind back of curb.



DETAIL NO. G = 3440 CITY OF GOODYEAR STANDARD DETAIL APPROVED BY: Goodyear Standards and Policies Committee 7/97

FORCE MAIN CLEANOUTS

DETAIL NO. G = 3440



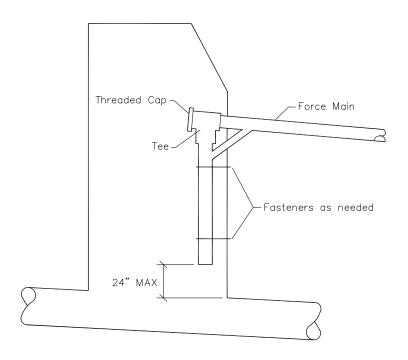
NOTE: Rotate vault as required to keep behind back of curb.

DETAIL NO. G-3441

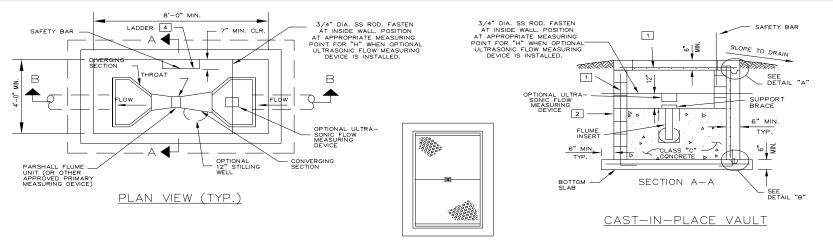
CITY OF GOODYEAR STANDARD DETAIL

APPROVED BY: Goodyear Standards and Policies Committee 7/97

SEWAGE AIR RELEASE VALVE



NOTE: Discharge outlet shall never be below crown of downstream pipe.



#### NOTES

- 1 REINFORCED STEEL AND CLEARANCE AS APPROVED BY THE ENGINEER.
- 2 BLACK MASONRY MAY BE USED IN LIEU OF CIP WALLS. 8" BLOCK MASONRY, GROUT EACH CELL TO FULL HEIGHT (GROUT PER MAG SECTION 776).
- 3 2 TORSION SPRING ASSISTED GALVANIZED DIAMOND PLATE ACCESS DOORS (DESIGN LOADING AASHO—H20) LOCKING WITH TYPE 304SS HARDWARE AND SAFETY BAR (BLICO MODEL LU-3, OR APPROVED EQUAL)
- LADDER SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE DETAIL AND SHALL MEET THE REQUIREMENTS OF OSHA FOR TYPE 1A (3001bs) FIXED LADDERS.
  SNELLED FOR ALL MORE AND A CERTIFICATION THAT THE LADDER MEETS OR EXCEEDS OSHA REQUIREMENTS FOOT TYPE 1A (3001bs) SERVICE SHALL BE SUBMITTED FOR REVIEW PRIOR TO FURNISHING AND INSTALLING. MILL FINISHED ALUMINUM LADDER OR APPROVED CORROSION RESISTANT MATERIAL.
- 5 2" x 4" KEY, CENTER ON WALL. (INSTALL ROPE CAULK CONTINUOUSLY).
- 6 1-5/8" x 2-1/2" x 3" KEY.
- 7 4" PVC DUMBELL TYPE CONTINUOUS WATERSTOP 3/8" MIN. THICKNESS. (WASH THOROUGHLY PRIOR TO INSTALLATION.
- 8 ANCHOR STRAPS (3 EACH SIDE) WITH 5/8" x 3-1/2" 316SS ANCHOR BOLTS WITH LOCK WASHER AND NUT.

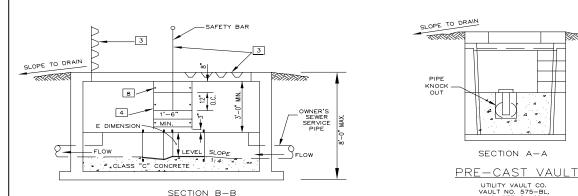
## COVER WITH LID

SECTION A-A

UTILITY VAULT CO.

VAULT NO. 575-BL, NO. 577-BL OR

APPROVED EQUAL



EQUIPMENT DESCRIPTION A FISHER AND PORTER TYPE 10F1940, HINDE ENGINEERING COMPANY, PS-1001, OR APPROVED EQUAL MOLDED FIBERGLASS REINFORCED POLYESTER PARSHALL FLUME SHALL BE INSTALLED. THE FLUME SHALL BE MOLDED IN ONE PIECE WITH AMPLE WALL HICKNESS AND REINFORCING RIBS TO PREVENT DISTORTION DURING SHIPMENT, INSTALLATION, AND OPERATION. THE FLUME SHALL BE SELF-SUPPORTING AND REQUIRE NO EXTERNAL SUPPORTING STRUCTURE. INTERIOR DIMENSIONS SHALL CONFORM TO THOSE IN THE LATEST REVISION OF WATER MEASUREMENT MANUAL PUBLISHED BY THE U.S DEPARTMENT OF THE INTERIOR, WATER AND POWER RESOURCES SERVICES. THE THROAT WIDTH AND FLUME HEIGHT (\*E DIMENSION) SHALL BE PER PLAN.

7/97



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### GENERAL NOTES

- 1. ALL CONSTRUCTION SHALL CONFORM TO MAG SPECIFICATIONS AND DETAIL AND CITY OF SCOTTSDALF SUPPLEMENT TO MAG SPECIFICATIONS AND DETAILS, UNLESS MODIFIED ON PLANS.

  2. ALL CONCRETE FLOORS, WALLS AND TOP SLAB OF THE STRUCTURE SHALL CONFORM TO MAG SECTION 725,
- CLASS A, MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS = 3,000PSI.

  3. ALL CONCRETE FOR GROUT FILLET INSIDE THE STRUCTURE SHALL CONFORM TO MAG SECTION 725, CLASS C, MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS = 2,000 PSI.
- 4. ALL STEEL REINFORCING SHALL BE DEFORMED BARS, GRADE 60, BILLET STEEL CONFORMING TO ASTM SPECIFICATION NO. A-615, LATEST EDITION. 5 THE MONITORING/SAMPLING VALUET SHALL BE INSTALLED ON THE OWNER'S PROPERTY AS CLOSE TO THE
- CUSTOMER TAP TO THE CITY SEWER AS FEASIBLE, AND APPROVED BY THE CITY OF SCOTTSDALE.
- 6. FLUME SIZE SHOULD BE BASED UPON THE MINIMUM AND MAXIMUM FLOW RATES AND VELOCITIES TO
  - INSURE FREE-FLOW CONDITIONS.

    --MAXIMUM FLOW = 70%-100% OF MAXIMUM CAPACITY OF SELECTED FLUME SIZE.

    -0.5 INCHES OF FLOW SHOULD EXIST AT THE MINIMUM ACTUAL FLOW.
- 7. FLUME FLOOR ELEVATION SHOULD BE HIGH ENOUGH, RELATIVE TO DOWNSTREAM CONDITIONS, TO PREVENT SUBMERGED FLOW (50% SUBMERGENCE IS ACCEPTABLE AT MAXIMUM FLOW), INSTALL THE FLUME LEVEL (LONGITUDINALLY AND TRANSVERSELY) IN THE CONVERGING SECTION.
- 8. UPSTREAM FLOW SHOULD BE WAVE FREE, NON-TURBULENT, AND SYMMETRICAL HAVING A UNIFORM VELOCITY (If on MINIMUM TO 3795 MAXIMUM) AT LEAST 10 TIMES THE DIAMETER OF THE UPSTREAM SEVER PIPE IN LENGTH IN THE APPROACH CHANNEL. BENDS UPSTREAM IN THE FLUME WILL NOT BE ALLOWED FOR A DISTANCE OF 25 PIPE DIAMETERS UNLESS CONDITIONS IN THE APPROACH SECTION OF THE FLUME WILL NOT BE ADVERSELY AFFECTED.
- 9. THE FLUME SHALL BE INSTALLED OFF-CENTER AND AWWAY FROM THE LADDER TO ALLOW THE MAXIMUM WORKING SPACE FOR CITY PERSONNEL.
- 10. IT SHALL BE THE OWNER'S RESPONSIBILITY TO PROPERLY MAINTAIN THE FLUME IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS TO ENSURE THE ACCURACY OF THE MEASUREMENT.

DETAIL NO. G-3450

CITY OF GOODYEAR STANDARD DETAIL

APPROVED BY: Goodyear Standards and Policies Committee

MONITOR/SAMPLING VAULT